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ATTACHMENT F

Comments on the USTA Pricing Flexibility Proposal

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COMMENTS ON THE USTA PRICING FLEXIBILITY PROPOSAL

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Executive Summary

This paper examines the United States Telephone Association (USTA) proposal to grant the local exchange carriers (LECs) access prices flexibility, depending on the degree of competition present in each market area. The analysis rests on the Federal Communications Commission's (FCC) stated goals for carrier access regulation and the principles of economic theory. To be desirable on these terms, an access reform proposal must achieve the consumer benefits from pricing flexibility without incurring efficiency losses in markets where a LEC has the ability and incentive to price anticompetitively. We conclude that the USTA proposal is sound, and its adoption would serve the public interest. The USTA proposal would benefit the customers, who would be able to purchase access services from the LECs, the competitive access providers (CAPs), or other competitors at the most efficient and lowest price.

The USTA proposes that the current LEC wire centers become the geographic areas that determine the degree of pricing flexibility. We believe that economic markets are generally larger than wire centers. However, the wire center, for now, is the smallest geographic area to which market power analysis can be applied.[1] The pricing flexibility in the USTA proposal will not create incentives for LECs to pursue anticompetitive strategies, and there are sufficient safeguards to address concerns regarding predation and discrimination. We also conclude that the proposed price cap structure insures that additional LEC pricing flexibility would not facilitate subsidizing carrier access services in competitive wire centers at the expense of carrier access customers in less competitive areas. Instead, the additional pricing flexibility would provide the pro-competitive ability

[1]While the wire center is the basic unit of observation in the USTA proposal, USTA recognizes that in many instances it may be useful to consider the competitiveness of larger market areas.

to meet competitors' prices and customers' individual needs by charging prices that more accurately reflect the costs of providing services.

A key element of the USTA proposal is the method for assessing the competitiveness of a wire center (or wire centers), which is based on the availability of competitive alternatives to a substantial fraction of the current demand for carrier access services. We feel strongly that availability is superior to share in this context. Economic theory, the Department of Justice Merger Guidelines and the Cable Act of 1992 all suggest that the form of the USTA proposed standard for competitiveness is appropriate and realistic. Given the degree of pricing flexibility requested, the proposed criteria to classify access markets as Transitional Market Areas (TMAs) are probably conservative, and the Competitive Market Area (CMA) criteria are certainly reasonable. The USTA proposal applies these concepts to both large and small LECs, so that the necessary degree of pricing flexibility can be implemented in all relevant geographic areas as competitive conditions warrant.

There appears to be common agreement that regulatory impediments to competition in the carrier access market need to be eliminated in order to provide the maximum benefits of competition to consumers. Changes of this magnitude are not uncommon; the FCC has granted AT&T pricing flexibility when it found that circumstances warranted or required such actions. Obviously, the goal of efficient regulation is to open markets so that all potential competitors are given an opportunity to compete, and the FCC is progressing rapidly in that direction. However, much of this effort will be wasted if competition takes place in the shadow of the current carrier access regulations, which handicap LECs in their response to changing market conditions by holding a price umbrella over competitive market areas.

Incumbent LECs must be permitted to adjust their prices and products when competition starts--not when competitors succeed. Otherwise, competitors will receive false economic signals

and will make incorrect calculations about their ability to supply services in particular market areas. Thus the principal benefit from the provision of appropriate pricing flexibility in these markets is that market forces will determine which firms provide what services. Without increased downward pricing flexibility for the LECs, this benefit of competition will not accrue to customers, and carrier access competition may raise industry costs rather than lower them.

Comments on the USTA Pricing Flexibility Proposal

I. Introduction

The United States Telephone Association (USTA) has proposed criteria for classifying carrier access markets according to the degree of competition present in each market and granting more pricing flexibility in markets that are subject to more competition. We have examined the proposal and find that the USTA pricing criteria are sufficiently restrictive to achieve the goals of Federal Communications Commission (FCC) regulation while remaining sufficiently flexible so that the benefits of competition will also be achieved.

The regulators' problem is to determine the level of competition in each market and to adopt regulations that appropriately complement market forces, thus fostering the two types of economic efficiency: technical and allocative.[2] These inevitably imperfect regulations should be designed to imitate the process of competition in those markets where competition is not present. If the regulations are inappropriate for the level of competition in a given market area, the benefits of effective competition are not realized by consumers. These benefits are potentially significant. Competition can provide just and reasonable prices, suitable levels of service quality, efficient use of scarce resources, sustained technical progress, and incentives to develop and market new products and services. However, it is critical that appropriate regulations, reflective of market conditions, be

[2]Efficient competition fosters technical efficiency by eliminating high-cost suppliers from the market. Since a price umbrella is not provided for inefficient entrants or for the incumbent, services will only be provided by low cost firms. Economically efficient pricing leads to allocative efficiency because the prices at which goods and services trade reflect the value of the resources used to produce them.

established prior to widespread competition to ensure that potential competitors make efficient entry decisions.

The goals of FCC regulation of carrier access charges were succinctly stated in the recent Staff Working Paper on access reform:[3] (i) to foster local exchange and interstate competition, (ii) to encourage economically efficient pricing, (iii) to encourage service and technological innovation, and (iv) to preserve universal service. Although these interrelated goals are addressed and supported by the USTA proposal, we have limited our attention to its pricing flexibility component and are primarily concerned with the first two goals, which emphasize the importance of technical and allocative efficiency. Achieving these two goals requires two different constraints on the pricing flexibility of the local exchange carriers (LECs): prices cannot be either too high or too low.

Economically efficient prices for local access services would be close to economic costs, deviating from economic costs only to the extent necessary to recover fixed and common costs with the least distortion. Unrestricted by regulation or competition, however, it is presumed that LECs, or for that matter any firm, would not generally charge efficient prices in non-competitive markets. They would be expected to charge prices that made their profits as large as possible, and if competition or regulation imposed no limits, LEC prices would generally exceed economic costs. To achieve economically efficient prices, the ability of the LEC to hold its price above cost must therefore be constrained, either by the competitive process--where it is effective--or by regulation--where it is not. Such constraints limit the ability of the LEC to raise prices.

Fostering efficient local exchange competition addresses the ability of the LEC to lower prices. If competition among LECs, competitive access providers (CAPs), cable companies, and cellular and personal communication services (PCS) providers is to flourish, then one firm must not

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[3]FCC Access Reform Task Force, "Federal Perspectives on Access Charge Reform," FCC Staff Working Paper, April 30, 1993, p. 3 [Staff Working Paper].

be able to use market power in some portions of the local market to disadvantage competitors in other parts of that market. Regulatory or judicial oversight is frequently sought by competitors to restrain anticompetitive strategies such as predatory pricing, cross-subsidization, and vertical price squeezes. Such oversight, however, should focus on preventing anticompetitive behavior without impeding the LECs' ability to compete.

Finally, both types of economic efficiency can be affected by LEC prices that are neither too high nor too low on average but which vary too much among customers, among competitors, or between the LEC itself and its competitors. Limits on the ability of the LEC to rebalance rates across classes of customers would be desirable if such rebalancing were anticompetitive or led to adverse distributional consequences. If the access price differences across competitors did not reflect cost or market differences, the competitive process in the long distance market would no longer favor the efficient supplier, and competition would no longer accurately allocate scarce resources to their most productive use.[4] Inappropriate differences between the access prices paid by interexchange carriers and the implicit transfer prices paid by the LEC's own long distance services leads to circumstances in which the cost advantage of the most efficient producer can disappear. When the low cost long distance supplier is unable to charge the lowest price, the competitive process will thus not lead to technical efficiency; the social cost of service provision will be artificially inflated.

Similarly, if limits on LEC rebalancing would lead to an overall pattern of access charges (not just LEC access charges) with preferable distributional properties, such limits might be desirable on that score. Note, however, that under vigorous competition, limiting LEC pricing alone will not affect the overall pattern of, for instance, volume discounts.

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[4]For example, geographically, route, and technologically averaged transport prices would favor small interexchange carriers over large and ubiquitous carriers.

Balanced against these possible disadvantages of unrestricted LEC pricing flexibility are the consumer benefits that come from permitting large, previously regulated firms to change their prices and products to respond to customers' preferences. As the Commission observed in the Special Access Order,

> "(e)xcessive constraints on LEC pricing and rate structure flexibility will deprive customers of the benefits of competition and give the new entrants false economic signals." [5]

The key to a successful access reform proposal is to find some way to achieve the consumer benefits from pricing flexibility without incurring efficiency losses in markets where the LEC has the ability and incentive to charge economically inefficient prices. We believe that the USTA plan achieves that delicate balance. Specifically, the proposal identifies three types of market areas: (i) initial market areas (IMAs) in which competition has not been sufficiently documented to warrant any additional relaxation of regulation,[6] (ii) transitional market areas (TMAs) where the presence of competition triggers a limited amount of flexibility, and (iii) competitive market areas (CMAs) where competition has sufficiently evolved so that carrier access services can be removed from price cap regulation. In this paper, we analyze the balance between the benefits of pricing flexibility and control of market power and anticompetitive conduct struck in the USTA proposal, and conclude that it is reasonable and likely to serve the public interest.

II. The Need for Reform

It is universally acknowledged that telecommunications has experienced a sea change since carrier access charges were devised as a substitute for the Bell System settlements process at

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[5] Expanded Interconnection with Local Telephone Company Facilities, CC Docket No. 91-141, Report and Order, 7 FCC Rcd 7369 (1992) [Special Access Order] at ¶ 172.

[6] Other aspects of the USTA proposal not pertaining to pricing flexibility, such as access services rate structure reform and public policy support obligations, would apply to all market areas--including IMAs.

divestiture. Most observers would also agree that the Part 69 Rules are no longer responsive to current market conditions and should be changed.[7] While there is agreement that changes are necessary, there is less agreement on the direction of those changes.

Since divestiture, LEC provision of equal access, Open Network Architecture (ONA), and expanded interconnection has altered the structure of the long distance and carrier access markets, opening opportunities to compete in specialized market niches and in markets for basic telecommunications services like switching and transport. The introduction of new technologies--principally optical fiber transport--has made competition possible in the carrier access market, much as microwave radio technology made competition possible in the long distance markets. Adoption of various forms of incentive regulation in most states and of price cap regulation by the FCC has removed distortions that cause the incentives of the regulated companies to differ from those of unregulated firms in competitive markets. An important feature of this regulatory change has been the reduction or elimination of some perverse incentives which stem from rate-of-return regulation, for the LEC to price anticompetitively. Finally, the FCC has also adopted zone density pricing plans for switched and special access that provide potential entrants with more reasonable expectations of the LECs' ability to compete.

Significant regulatory impediments to competition, however, remain in the carrier access markets. Two examples are geographic averaging of access charges and tariffing requirements for access services. Geographic averaging of carrier access charges ignores differences in the cost of serving customers, in the types of services demanded, and in the response of customers to service provision through alternatives to the public switched network. Access prices are currently set at varying levels of aggregation depending on the LEC, and they bear no necessary relationship to

[7]Staff Working Paper at p. 32, and Reform of the Interstate Access Charge Rules (RM-8356), Comments to USTA Petition for Rulemaking (Nov. 1, 1993) of MFS at p. 1, CompTel at p. 1, and Information Technology Association of America at p. 10.

economic markets. The areas used to set prices can be as large as a dozen states or as small as a handful of exchanges. Treating all LEC services within each of these areas as equally subject to competition makes no economic sense; to be responsive to the emerging carrier access markets, prices must be set at geographic levels of aggregation that correspond approximately to economic markets. Otherwise, geographically inflexible LEC prices will spawn pockets of urban, high density customers susceptible to offerings of competitors and other pockets of rural, low density customers having artificially low prices but no choices.[8]

Tariffing restrictions on LECs are a form of asymmetric regulation that reduces the ability of the LEC to market its services to customers by varying product characteristics (including prices) to determine the best product and price for the market. In contract bridge, a peek is worth a thousand finesses, and in marketing, observing the response of actual customers to a variety of actual products and prices is essential if the firm is to serve its customers. In addition, Part 69 tariff requirements can prevent LECs from meeting customer needs in a predictable and timely manner. The waiver process adds a whiff of uncertainty to LEC offerings that a customer can avoid by shopping elsewhere. The Part 69 Rules also set prices for access elements at fully distributed cost, averaged over geographic areas and customers. A firm whose procedures were driven by the needs of its customers would not have created the Part 69 filing requirements.

These restrictions on LEC access pricing flexibility are ultimately anticompetitive, as they prevent customers from taking advantage of competition among LECs and CAPs to realize price reductions. And this fact is not lost on the LECs' competitors. In arguing against the pricing flexibility currently provided in the price cap rules, Penn Access claimed that such flexibility

[8]Although the approved LEC density zone plans introduce limited pricing flexibility, competitive pressures require additional flexibility. The shortcomings of the density zone plan include the inability to vary rates within a zone and to offer contract prices.

> "effectively limits the ability of competitive access providers (CAPs) to raise their rates and, indeed, forces them in some instances to lower their rates."[9]

This, of course, is what competition is supposed to do. Restricted, regulated competition in which LEC prices are determined outside the market will not bring the benefits of price competition to customers.

The Commission has recognized this fact in the interexchange market, where it has monitored competitive, technological, and regulatory developments and has granted AT&T several types of pricing flexibility when it has found that circumstances warranted or required such actions. In particular, regulation of AT&T has been relaxed through:

- pure price cap regulation with no vestigial tie to rate of return regulation through sharing or other backstop mechanisms,
- removal of high capacity private line services (Basket 3) and the recent removal of most large business services (Basket 2) from price cap regulation,
- contract pricing through Tariffs 12 and 16, and
- streamlined regulation for competitive offerings, optional calling plans, and introductory or limited term price discounts.

The need is clear to reform the carrier access tariff structure to make it responsive to current market conditions. To appraise the economic consequences of the particular changes proposed by USTA, we must now set out both the efficiency gains and losses that stem from relaxed regulation and pricing flexibility.

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[9] Penn Access, *Petition to Reject or, Alternatively, to Suspend and Investigate Bell Atlantic Transmittal No. 557*, (collocation tariff), March 15, 1993, p. 2.

III. Economic Framework

Most economists would agree that the unregulated competitive process is a better method of organizing economic activity than any regulatory scheme devised by man. The regulators' problem as telecommunications markets transition towards competition is that in some markets, the competitive process is weak and does not exert sufficient pressure to prevent the occurrence of certain undesirable outcomes. For example, granting the LEC additional pricing flexibility could result in higher prices in regulated markets in which the LEC has the ability to raise prices profitably above their current level. Pricing flexibility could be used inappropriately to engage in undue price discrimination between customer classes, between interexchange carriers, between different users of the same network facilities, or between a competitor's service and the service used by the LEC's own retail operations. Finally, pricing flexibility could make possible or encourage anticompetitive pricing practices such as predatory pricing, cross-subsidization, or a vertical price squeeze.

The USTA criteria that a LEC geographic area must meet in order to receive some degree of pricing flexibility (TMA and CMA) must ensure that the additional pricing flexibility made possible would not enable the LEC to price discriminate unduly or to price anticompetitively.

A. Market Power

The object of controlling market power is to prevent the charging of supra-competitive, or high, prices. In contrast, competitors are most concerned that the dominant firm's prices may be too low. In order to accept the USTA proposal, the regulator must be confident that the pricing flexibility requested in a given market area will not permit the LEC to charge inefficiently high prices to customers who lack adequate alternatives. Customers generally have at least one important alternative in carrier access markets. There are three principal customers for carrier access service, and in any geographical area these customers will have alternatives to LEC carrier access to serve

end users. One of the main alternatives used by all three customers is self-supply, where an interexchange carrier extends its own network, substituting self-provision for the use of LEC facilities. The cost of self-supply puts an upper limit on LEC prices.

Strictly speaking, prices above incremental cost are inefficient,[10] and the ability to raise price above competitive levels must be absent or (if not) must be controlled in order to achieve the first of the FCC's stated goals of regulation. Note that the ability to raise price must be controlled; structural characteristics of markets such as the number and size of competitors and the market share of the LEC are relevant only insofar as they affect the ability to raise price. In short, the regulator's ultimate concern is with market power--the ability to raise price above the competitive level--not with market share or other imperfect correlates of market power.

The ability to raise price profitably above the competitive level requires that there be inadequate substitutes currently available for the LEC service and that substitutes not be readily supplied in response to a profitable opportunity. Because of self-supply of access facilities by interexchange carriers, the existence and success of competitive entrants in carrier access markets will not be necessary to curb market power. Once expanded interconnection is implemented, irrespective of the presence of access competitors, interexchange carriers (IXCs) can purchase those pieces of the LEC's local network for which the price is below the IXC's own forward-looking incremental cost and self-provide those network components for which the LEC's price is above the IXC's cost. In these markets, no competitors (CAPs or cable companies)--and even no threat of competitors--is necessary to impose some competitive market discipline on the LEC's ability to raise price.

[10]Of course, in the telecommunications industry, prices set at incremental cost will only recover a fraction of the total costs of the firm. Efficient prices in these circumstances are those which exceed incremental cost in each of the various markets of the firm so as to recover the total costs of the firm while distorting consumers' levels of demands in each market as little as possible.

Several other theoretical aspects of measuring market power are relevant in this analysis. Market power is different from market share: a useful measure of market power can be written as a function of market share, the entrants' and competitors' elasticity of supply, and the market price elasticity of demand.[11] For market share calculations in the carrier access markets, the appropriate measure of size is capacity, i.e., the fraction of the market that a particular firm is capable of serving. In their Merger Guidelines, the Department of Justice (DOJ) observed that

> "(m)arket shares can be expressed either in dollar terms through measurement of sales, shipments, production, capacity, or reserves....When the availability of data allows a choice, dollar sales or shipments generally will be used if branded or relatively differentiated products are involved, and physical capacity, reserves of dollar production generally will be used if relatively homogeneous, undifferentiated products are involved."[12]

In the recent revision and expansion of these guidelines (April 1992), this observation is replaced with the advice that

> "(m)arket shares will be calculated using the best indicator of firms' future competitive significance. Dollar sales or shipments generally will be used if firms are distinguished primarily by differentiation of their products. Unit sales generally will be used if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers. Physical capacity or reserves generally will be used if it is these measures that most effectively distinguish firms." (pp. 25-26).

For homogeneous products (like carrier access services) sold as intermediate goods, the fraction of the market that can be served by a competitor is thus the appropriate measure of market share.[13]

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[11]See, e.g., D.W. Carlton and J.M. Perloff, *Modern Industrial Organization*, New York: Harper Collins College Publishers, second edition, 1994.

[12]U.S. Department of Justice, Merger Guidelines, June 1984.

[13]In a regulated market, conditioning pricing flexibility on the market share of sales of the dominant firm sets up incentives which are perverse in the extreme: success in serving customers better than one's competitors is punished by retaining pricing restrictions for a longer period, while failure in the market is rewarded by additional pricing flexibility. Use of share of capacity instead of share of sales avoids this fundamental error.

In calculating market share for the purpose of estimating market power in the carrier access market, self-supply creates a serious measurement problem: not all of the relevant supply of the product ever comes on the market. Carrier access services are sold to customers who can supply the services themselves. Interexchange carriers' networks perform the same functions of switching and transport that LEC networks provide; the IXCs determine in their network expansion plans where they will purchase access transport and switching and where they will carry and switch the traffic themselves. Hence an observation such as "98 percent of an IXC's access expenditure goes to LECs" is biased as an indicator of market share or market power because it ignores the carrier access functions contained in the IXC's own network.[14] Indeed, even if there were regulatory barriers to entry that prevented CAP or cable participation in these markets, expanded interconnection supplied to IXCs would impose severe restrictions on the ability of the LEC to control the prices of carrier access services.

Market share and market power calculations for carrier access services have a geographic component. Competitors' networks provide alternatives to LEC access, but only to those customers whose traffic is sufficiently large to warrant a direct connection and whose premises are sufficiently close to the CAP's network.[15] Given geographic pricing flexibility, the LEC, as would any other firm, could exercise market power in any single geographic area where it experienced no competition. Thus, to justify pricing flexibility, it must be the case that either regulatory rules or the competitive process constrains the LEC in each geographic area in which it operates.

Finally, the goal of efficient regulation when markets are opened to competition should be to ensure that all potential competitors are given an opportunity to compete. The pricing structure

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[14]This argument also ignores that access could be purchased from another non-IXC supplier, or self-supplied by end-users. In either case, there would be no purchase from IXCs when customers buy directly from LECs or CAPs.

[15]Or, more generally, for those customers whose traffic can be aggregated economically into a size and at a location for which direct connection to a CAP is cost-effective.

introduced with expanded interconnection and ONA allows competitors (CAPs and cable companies) to resell all components of the LEC's network necessary for them to compete. Regulation should not seek to ensure that competitors thrive and their market shares increase; such regulation prejudges the outcome of the competitive experiment, in which we observe whether particular CAPs (for example) are adroit enough to survive and whether the CAP (or IXC or LEC) industry can efficiently meet the needs of customers.

B. Undue discrimination

A consequence of expanded interconnection is that customers with alternatives for some portions of the local network will be able to demand lower prices than customers without such alternatives. Regulatory policy has often tried to restrict the degree to which cost savings could be channeled to low-cost customers at the expense of high-cost customers. Such a policy -- if maintained -- would take the form of limiting the amount by which the LEC's access charges could be rebalanced across customer groups: i.e., limiting the amount by which prices to some customers could rise while prices to others fall in the current price cap environment.

However worthy this objective, it cannot now be achieved.[16] Since competitors are not required to serve ubiquitously at averaged rates, the competitive process will insure that well-situated customers will be offered low prices reflecting their circumstances. There is no question what prices such customers will pay; the only question is whether or not the LEC will be permitted to compete for their business. In such circumstances, it is easy to see that customers benefit from the LEC's ability to meet market prices, and limitations on that ability reduce some of the benefits from competition to which customers are entitled.

[16]Of course, the objective may not be particularly worthy. Unregulated markets frequently exhibit price variation for large and small customers or for customers in high-cost and low-cost geographic areas, and thus enforcement of uniform prices for all customers would most likely entail some loss in economic efficiency.

A similar story holds for interexchange carriers. IXCs can take advantage of expanded interconnection and carrier access competition in two ways: (i) they can purchase services from the lowest-priced access provider, or (ii) they can provide their own facilities and services where the LEC's access price exceeds the IXC's cost. If the economic costs of dedicated transport without tandem switching are lower than the costs of common transport with tandem switching, then IXCs with sufficient traffic volumes will take advantage of such cost savings regardless of pricing constraints on the LECs. Even if regulation continues to constrain LEC carrier access prices to preserve the current balance of advantages in the interexchange market, the Commission can only preserve that balance if it constrains the pricing of CAPs as well:

> "...to prevent exercise of AT&T's monopsony power, the Commission may need to require that [CAPs] offer switched access service under tariffs using the same benchmarking standards which we have previously demonstrated as requirements for LEC access pricing."[17]

In the Commission's words:

> "Denying the LECs [pricing] flexibility...will not prevent the larger IXCs from obtaining discounts, either from CAPs or through self-supply, but will only prevent them from getting the discounts from the LECs. Thus, a ban on discounts would disadvantage the LECs without providing small IXCs the benefits they seek to achieve."[18]

The relevant public policy concern is to insure that low-cost LECs will be able to provide such services in the same manner as CAPs, cable companies, or the IXCs themselves.

C. Anticompetitive Pricing

The regulatory problem shifts in this section from prices that are too high to prices that are too low. One of the primary objectives of pricing flexibility is the ability to reduce prices to

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[17]Comments of Wiltel, Inc., CC Docket 91-141 (Transport, Phase I), p. 4, footnotes omitted.

[18]Expanded Interconnection with Local Telephone Company Facilities, CC Docket No. 91-141, Second Report and Order, FCC 93-379 (released September 2, 1993) [Phase I Order] at ¶ 117.

meet competition. Since the initial level of prices for carrier access services was not set by an economic cost or market standard, price reductions for some services in some geographic areas will be necessary so that the LEC's offerings will be competitive. The economic issue is to identify circumstances in which such price reductions are anticompetitive, in the sense that lower cost, more efficient competitors would be disadvantaged and unable to compete in the face of such pricing tactics.

Three forms of anticompetitive pricing are frequently alleged, and the regulator must have assurances that any proposed regulatory reform does not permit or encourage any of these pricing schemes.

1. Predatory Pricing

To be a successful competitive strategy, predatory pricing requires that three conditions hold: (i) the predator must be a dominant firm or likely to become one, (ii) market structure must allow later recoupment of funds invested in predation, and (iii) the predator must invest in the elimination of its competitor. Dominance, recoupment, and investment are thus all necessary components of a predation strategy. Regulatory rules that restrict dominance, eliminate barriers to entry, and prevent pricing below cost address each of these concerns, and if **any** such rule is successful, predation will not be a profitable strategy for a regulated firm.

Telecommunications markets are vulnerable to predatory pricing assertions because of apparent dominance. However, recoupment and investment in a rival's destruction are particularly unlikely in these markets.

As the Supreme Court observed in *Matsushita*; recoupment is difficult in general:

> "(t)he success of any predatory scheme depends on *maintaining* monopoly power for long enough both to recoup the predator's losses and to harvest some additional gain...For this reason, there is a consensus among

> commentators that predatory pricing schemes are rarely tried and even more rarely successful."[19]

In the pantheon of predatory business strategies, predatory pricing is particularly ineffective because it is very expensive for a firm to reduce its own profits in order to harm its rival. It is generally cheaper to harm a rival directly, e.g., by devising strategies to raise its costs but not one's own.[20]

Recoupment is particularly difficult in telecommunications because many different services are provided through the same network, and networks are long-lived, immobile investments. While the firm may enter or exit different markets for different services, the network will remain. Predation in an interstate carrier access market (for example) may prevent CAPs from supplying interstate carrier access services, but their networks can still supply local and intrastate services. Moreover, networks of many competitors extend beyond the boundaries of an individual LEC serving territory, study area, or wire center, so driving a rival from the interstate carrier access market in a particular wire center is unlikely to drive the rival permanently from the telecommunications business. And when the LEC raises prices in the future to recover its lost profits, the rival's network will still be in place, and the LEC will be unable to earn above-normal profits to compensate it for its earlier losses.[21]

To prevent a dominant firm from investing in its rivals' destruction, public utility regulators have devised a number of direct tests for predatory pricing, generally based upon relationships between price and incremental cost. While such tests may be blunt instruments for

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[19] *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986), emphasis in original.

[20] See, e.g., the recent literature on raising rivals' costs, spawned by T. Krattenmaker and S. Salop, "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price," *The Yale Law Journal*, Vol. 96, No. 2, December 1986, pp. 209-293.

[21] It is worth noting that the entities competing with LECs in the carrier access market are large, well-financed and have the resources to survive short-term tactics, thus giving the LECs no opportunity to recoup short-term losses. LEC rivals include the largest CAPs, MFS and Teleport, which are owned by multi-billion dollar corporations, AT&T and McCaw, and MCI (which has recently announced its intention to become a local phone company).

detecting predatory behavior, they probably provide adequate safeguards to competitors in telecommunications, given the bleak prognosis for profitable predation at the outset.

In any case, the pricing flexibility requested in the USTA proposal does not appear to create any new opportunity for the LEC to invest in predatory behavior. So long as carrier access prices in more competitive markets remain above incremental cost, pricing flexibility that permits price reductions to match competition is procompetitive, not anticompetitive.

2. Cross-subsidization

In economic theory, a service provided by a rate-of-return regulated firm is cross-subsidized if the incremental revenue from provision of the service at current prices falls short of the incremental cost of providing the service at its current volume, taking into account demand cross-elasticities and cost complementarities.[22] Predatory pricing for a competitive service may be combined with an increase in prices or profits from a non-competitive service to offset the losses from predation. The problem is that customers of the non-competitive service would be better off if the subsidized service were discontinued and the savings used to reduce non-competitive service prices.[23]

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[22]The economics literature on cross-subsidization begins in the late nineteenth century: see E.P. Alexander, Railway Practice, New York, 1887, p. 4 (cited in G.R. Faulhaber, "Cross-Subsidization: Pricing in Public Enterprises," The American Economic Review, Vol. 65, No. 5, December, 1975, pp. 966-977). Modern discussions include Faulhaber (op. cit.); E.E. Zajac, Fairness or Efficiency: An Introduction to Public Utility Pricing, Cambridge: Ballinger Publishing Company, 1978, chapter 8; W.J. Baumol, Superfairness, Cambridge: MIT Press, 1986, chapter 6; and W.J. Baumol, "Minimum and Maximum Pricing Principles for Residual Regulation," Eastern Economic Journal, Vol V, No. 1-2, January/April 1979, pp. 235-248.

[23]In a sense, cross-subsidization is an artifact of rate-of-return regulation. Absent regulation, prices for noncompetitive services would be set at profit-maximizing levels. Under price cap regulation they would be set at the highest level permitted by the cap. In either case, the firm would have no ability to compensate for predatory pricing of competitive services by raising prices of noncompetitive services. Under rate of return the constraint on competitive prices is partly a function of prices of other more competitive services. Reducing the price of one service creates the opportunity to raise the price of another. This opportunity doesn't exist for an unregulated firm or a firm regulated by price caps.

In contrast, a widely-recognized benefit of price cap regulation is that it reduces or eliminates the ability and incentive of the regulated firm to cross-subsidize competitive services. To the extent that non-competitive services are isolated from competitive services under the price cap, lowering competitive service prices bestows no additional ability to raise non-competitive service prices to offset losses. Under price caps--or any form of incentive regulation that breaks the link between observed costs and prices--the LEC has the same incentive not to cross-subsidize as a competitive firm: if it invests money in the destruction of its rivals, it will have to absorb that investment as a reduction in its earnings and hope to recoup its losses later under more favorable circumstances.

The USTA pricing proposal affects prices regulated by the FCC's price cap plan. We show below that the proposal does not increase the ability to cross-subsidize, because flexibly priced services are brought out from under the price cap. Thus the LEC cannot raise prices in other geographic areas more than allowed under price cap regulation to fund below-cost pricing of services in a CMA. The USTA plan doesn't provide any new opportunities or pricing mechanisms to cross-subsidize.

3. Anticompetitive Price Squeeze

Even in dense urban markets, the LEC may possess facilities that are necessary for CAPs, cable companies, or IXCs to use to reach their customers. By charging competitors more for such facilities than the LEC (implicitly) charges its own carrier access service, the LEC could prevent a lower-cost service provider from competing in the market.

Like predatory pricing, a price squeeze requires that the LEC sacrifice current profits (e.g., from selling interconnection to a CAP) in favor of providing the interconnection directly to an IXC. It is a profitable strategy only if--at some future date--the price of interconnection to IXCs

can be increased enough to recoup foregone profits without incurring re-entry by CAPs. Such recoupment is unlikely: CAPs and IXCs are vast, well-funded organizations which have sunk large amounts of capital into their networks and which provide many services other than interstate switching and transport. And since those networks will continue to provide intrastate services even if they cannot compete with the LEC for interstate services because of a price squeeze, whenever interstate IXC carrier access prices are increased, the CAP will costlessly re-enter the interstate carrier access market. Thus the ability and incentive for LECs to undertake a vertical price squeeze are as weak as those to undertake predatory pricing.

In addition, a price squeeze requires that the dominant firm possess an essential facility; i.e., a service that its competitors cannot economically duplicate and therefore must purchase from it in order to compete at all. The widespread availability of fiber capacity, the deployment of separate networks, and the introduction of expanded interconnection greatly reduce the scope of possible bottleneck facilities through which a price squeeze could be attempted. Since CAPs and IXCs are currently constructing local networks which replace various components of the LEC network, including local loops and switching, one cannot simply treat the local exchange as an essential facility in determining a price floor for carrier access services.

4. Summary

Current regulatory constraints on LEC pricing prevent unwarranted price increases, decreases, and undue differences in prices across customers or interexchange carriers. The move from rate-of-return regulation has sharply limited the ability and incentive for the LEC to engage in anticompetitive practices, and removal of the sharing requirements would reduce such incentives even further. Nonetheless, the FCC will require assurance that any proposed access reform will be able to restrict the ability of the LEC to raise prices above the competitive level in those geographic